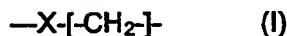


CLAIMS.

1. A method for preparing a dissolved catalyst component comprising the steps
5 of:

a) providing a halogenated precursor component of formula (I)



10 b) reacting the halogenated precursor with an ionic liquid precursor in a solvent to prepare an ionic liquid;

c) mixing in a solvent one equivalent of the ionic liquid prepared in step b) with a metallic complex of formula (II)



15 wherein L is a coordinating ligand for the metallic site, said coordination being achieved by phosphorus, nitrogen or oxygen;

d) evaporating the solvent; and

e) retrieving a hybrid single site catalyst component/ionic liquid system.

20 2. The method of claim 1 wherein the ionic liquid precursor is N -alkyl-imidazolium or pyridinium.

25 3. The method of claim 1 or claim 2 wherein between step b) and step c), the reaction product of step b) is reacted with an ionic compound C⁺A⁻, wherein C⁺ is a cation selected from K⁺, Na⁺, NH₄⁺, and A⁻ is an anion selected from PF₆⁻, SbF₆⁻, BF₄⁻, (CF₃SO₂)₂N⁻, ClO₄⁻, CF₃SO₃⁻, NO₃⁻ or CF₃CO₂⁻.

30 4. The method of any one of the preceding claims wherein the solvent used in steps b) and step c) is selected from THF, CH₂Cl₂ or CH₃CN.

5. A hybrid organometallic complex/ionic liquid system obtainable by the method of any one of claims 1 to 4.
- 5 6. A hybrid catalyst system comprising the hybrid organometallic complex/ionic liquid system of claim 5 and an activating agent.
- 10 7. The hybrid catalyst system of claim 6 wherein the activating agent is methylaluminoxane and wherein Y is a halogen.
- 15 8. The hybrid catalyst system of claim 7 wherein the amount of methylaluminoxane is such that the Al/M ratio is of from 100 to 1000.
- 15 9. A method for homopolymerising or copolymerising alpha -olefins that comprises the steps of:
 - a) heterogenising the hybrid catalyst system of any one of claims 6 to 8 by addition of an apolar solvent;
 - b) injecting into the reactor an apolar solvent and the heterogenised catalyst system of step a)
 - c) injecting the monomer and optional comonomer into the reactor;
 - 20 d) maintaining under polymerisation conditions;
 - e) retrieving the polymer under the form of chips or blocks.
- 25 10. The method of claim 9 wherein the apolar solvent is n -heptane.
- 25 11. The method of claim 9 or claim 10 wherein the monomer is ethylene or propylene.
- 30 12. A polymer having particle sizes of at least 0.5 mm obtainable by the process of any one of claims 9 to 11.